Lianhong Gu

List of Publications by Year in descending order

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		29994	18075
128	15,598	54	120
papers	citations	h-index	g-index
120	120	120	14416
138	138	138	14416
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Direct and indirect effects of climatic variations on the interannual variability in net ecosystem exchange across terrestrial ecosystems. Tellus, Series B: Chemical and Physical Meteorology, 2022, 68, 30575.	0.8	21
2	The roles of photochemical and non-photochemical quenching in regulating photosynthesis depend on the phases of fluctuating light conditions. Tree Physiology, 2022, 42, 848-861.	1.4	10
3	Aboveground and belowground contributions to ecosystem respiration in a temperate deciduous forest. Agricultural and Forest Meteorology, 2022, 314, 108807.	1.9	1
4	Inference of photosynthetic capacity parameters from chlorophyll a fluorescence is affected by redox state of PSII reaction centers. Plant, Cell and Environment, 2022, 45, 1298-1314.	2.8	12
5	The physiological basis for estimating photosynthesis from Chl <i>a</i> fluorescence. New Phytologist, 2022, 234, 1206-1219.	3.5	26
6	Artificial light at night: an underappreciated effect on phenology of deciduous woody plants. , 2022, 1,		18
7	Granal thylakoid structure and function: explaining an enduring mystery of higher plants. New Phytologist, 2022, 236, 319-329.	3.5	22
8	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO ₂ . New Phytologist, 2021, 229, 2413-2445.	3.5	286
9	Moisture availability mediates the relationship between terrestrial gross primary production and solarâ€induced chlorophyll fluorescence: Insights from globalâ€scale variations. Global Change Biology, 2021, 27, 1144-1156.	4.2	57
10	Partitioning Net Ecosystem Exchange (NEE) of CO 2 Using Solarâ€Induced Chlorophyll Fluorescence (SIF). Geophysical Research Letters, 2021, 48, e2020GL091247.	1.5	5
11	CO2 refixation is higher in leaves of woody species with high mesophyll and stomatal resistances to CO2 diffusion. Tree Physiology, 2021, 41, 1450-1461.	1.4	3
12	Photoperiod decelerates the advance of spring phenology of six deciduous tree species under climate warming. Global Change Biology, 2021, 27, 2914-2927.	4.2	48
13	Intensified Soil Moisture Extremes Decrease Soil Organic Carbon Decomposition: A Mechanistic Modeling Analysis. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006392.	1.3	3
14	Unpacking the drivers of diurnal dynamics of sun-induced chlorophyll fluorescence (SIF): Canopy structure, plant physiology, instrument configuration and retrieval methods. Remote Sensing of Environment, 2021, 265, 112672.	4.6	33
15	Studying drought-induced forest mortality using high spatiotemporal resolution evapotranspiration data from thermal satellite imaging. Remote Sensing of Environment, 2021, 265, 112640.	4.6	34
16	Vegetation restoration in <scp>N</scp> orthern China: A contrasted picture. Land Degradation and Development, 2020, 31, 669-676.	1.8	81
17	Photosynthetic and environmental regulations of the dynamics of soil respiration in a forest ecosystem revealed by analyses of decadal time series. Agricultural and Forest Meteorology, 2020, 282-283, 107863.	1.9	10
18	An Unmanned Aerial System (UAS) for concurrent measurements of solar-induced chlorophyll fluorescence and hyperspectral reflectance toward improving crop monitoring. Agricultural and Forest Meteorology, 2020, 294, 108145.	1.9	38

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19	The maximum carboxylation rate of Rubisco affects CO2 refixation in temperate broadleaved forest trees. Plant Physiology and Biochemistry, 2020, 155, 330-337.	2.8	4
20	Seasonal variations in the relationship between sun-induced chlorophyll fluorescence and photosynthetic capacity from the leaf to canopy level in a rice crop. Journal of Experimental Botany, 2020, 71, 7179-7197.	2.4	18
21	Forest Drought Response Index (ForDRI): A New Combined Model to Monitor Forest Drought in the Eastern United States. Remote Sensing, 2020, 12, 3605.	1.8	4
22	Resprouting Responses Dynamics of Schima superba Following a Severe Ice Storm in Early 2008 in Southern China: A Six-Year Study. Forests, 2020, 11, 184.	0.9	3
23	Systematic Assessment of Retrieval Methods for Canopy Farâ€Red Solarâ€Induced Chlorophyll Fluorescence Using Highâ€Frequency Automated Field Spectroscopy. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005533.	1.3	47
24	Evaluating the E3SM land model version 0 (ELMv0) at a temperate forest site using flux and soil water measurements. Geoscientific Model Development, 2019, 12, 1601-1612.	1.3	7
25	Sunâ€induced Chl fluorescence and its importance for biophysical modeling of photosynthesis based on light reactions. New Phytologist, 2019, 223, 1179-1191.	3.5	154
26	Using Daily Stand-Scale Evapotranspiration (ET) Estimated From Remotely Sensed Data to Investigate Drought Impact on ET in a Temporate Forest in the Central Us., 2019,,.		0
27	Advancing Terrestrial Ecosystem Science With a Novel Automated Measurement System for Sunâ€Induced Chlorophyll Fluorescence for Integration With Eddy Covariance Flux Networks. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 127-146.	1.3	48
28	Landâ€Atmosphere Responses to a Total Solar Eclipse in Three Ecosystems With Contrasting Structure and Physiology. Journal of Geophysical Research D: Atmospheres, 2019, 124, 530-543.	1.2	5
29	The importance of drought–pathogen interactions in driving oak mortality events in the Ozark Border Region. Environmental Research Letters, 2018, 13, 015004.	2.2	36
30	Isoprene emission response to drought and the impact on global atmospheric chemistry. Atmospheric Environment, 2018, 183, 69-83.	1.9	62
31	Imposed drought effects on carbon storage of moso bamboo ecosystem in southeast China: results from a field experiment. Ecological Research, 2018, 33, 393-402.	0.7	12
32	Calibration of the E3SM Land Model Using Surrogateâ€Based Global Optimization. Journal of Advances in Modeling Earth Systems, 2018, 10, 1337-1356.	1.3	25
33	The multi-assumption architecture and testbed (MAAT $v1.0$): R code for generating ensembles with dynamic model structure and analysis of epistemic uncertainty from multiple sources. Geoscientific Model Development, 2018, 11, 3159-3185.	1.3	13
34	A MODIS Photochemical Reflectance Index (PRI) as an Estimator of Isoprene Emissions in a Temperate Deciduous Forest. Remote Sensing, 2018, 10, 557.	1.8	10
35	Biophysical drivers of seasonal variability in <i>Sphagnum</i> gross primary production in a northern temperate bog. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 1078-1097.	1.3	22
36	OCO-2 advances photosynthesis observation from space via solar-induced chlorophyll fluorescence. Science, 2017, 358, .	6.0	438

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37	Drought impacts on photosynthesis, isoprene emission and atmospheric formaldehyde in a mid-latitude forest. Atmospheric Environment, 2017, 167, 190-201.	1.9	16
38	Informing models through empirical relationships between foliar phosphorus, nitrogen and photosynthesis across diverse woody species in tropical forests of Panama. New Phytologist, 2017, 215, 1425-1437.	3.5	46
39	The interaction between nitrogen and phosphorous is a strong predictor of intra-plant variation in nitrogen isotope composition in a desert species. Biogeosciences, 2017, 14, 131-144.	1.3	10
40	Attaining whole-ecosystem warming using air and deep-soil heating methods with an elevated CO ₂ atmosphere. Biogeosciences, 2017, 14, 861-883.	1.3	115
41	Peer review report 1 on "Continuous, long-term, high-frequency thermal imaging of vegetation: uncertainties and recommended best practices― Agricultural and Forest Meteorology, 2016, 217, 419.	1.9	0
42	A new paradigm of quantifying ecosystem stress through chemical signatures. Ecosphere, 2016, 7, e01559.	1.0	16
43	Quantifying spatially and temporally explicit CO 2 fertilization effects on global terrestrial ecosystem carbon dynamics. Ecosphere, 2016, 7, e01391.	1.0	6
44	Testing a land model in ecosystem functional space via a comparison of observed and modeled ecosystem flux responses to precipitation regimes and associated stresses in a Central U.S. forest. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 1884-1902.	1.3	29
45	Evaluating atmospheric CO2 effects on gross primary productivity and net ecosystem exchanges of terrestrial ecosystems in the conterminous United States using the AmeriFlux data and an artificial neural network approach. Agricultural and Forest Meteorology, 2016, 220, 38-49.	1.9	31
46	Impacts of precipitation variability on plant species and community water stress in a temperate deciduous forest in the central US. Agricultural and Forest Meteorology, 2016, 217, 120-136.	1.9	33
47	Large drought-induced variations in oak leaf volatile organic compound emissions during PINOT NOIR 2012. Chemosphere, 2016, 146, 8-21.	4.2	16
48	Incorporating microbial dormancy dynamics into soil decomposition models to improve quantification of soil carbon dynamics of northern temperate forests. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2596-2611.	1.3	29
49	Drought onset mechanisms revealed by satellite solarâ€induced chlorophyll fluorescence: Insights from two contrasting extreme events. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2427-2440.	1.3	224
50	Remote sensingâ€based estimation of annual soil respiration at two contrasting forest sites. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2306-2325.	1.3	15
51	Ecosystemâ€scale volatile organic compound fluxes duringÂan extreme drought in a broadleaf temperate forestÂof the Missouri Ozarks (central <scp>USA</scp>). Global Change Biology, 2015, 21, 3657-3674.	4.2	76
52	An ecosystem-scale perspective of the net land methanol flux: synthesis of micrometeorological flux measurements. Atmospheric Chemistry and Physics, 2015, 15, 7413-7427.	1.9	31
53	Drought-influenced mortality of tree species with different predawn leaf water dynamics in a decade-long study of a central US forest. Biogeosciences, 2015, 12, 2831-2845.	1.3	46
54	Nitrogen control of & amp; lt; sup & amp; lt; lsup & amp; lt; lsup & amp; gt; Cenrichment in heterotrophic organs relative to leaves in a landscape-building desert plant species. Biogeosciences, 2015, 12, 15-27.	1.3	11

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55	Performance of Linear and Nonlinear Two-Leaf Light Use Efficiency Models at Different Temporal Scales. Remote Sensing, 2015, 7, 2238-2278.	1.8	23
56	The many meanings of gross photosynthesis and their implication for photosynthesis research from leaf to globe. Plant, Cell and Environment, 2015, 38, 2500-2507.	2.8	92
57	Biotic and climatic controls on interannual variability in carbon fluxes across terrestrial ecosystems. Agricultural and Forest Meteorology, 2015, 205, 11-22.	1.9	47
58	<scp><i>S</i></scp> <i>phagnum</i> physiology in the context of changing climate: emergent influences of genomics, modelling and host–microbiome interactions on understanding ecosystem function. Plant, Cell and Environment, 2015, 38, 1737-1751.	2.8	60
59	Microbial dormancy improves development and experimental validation of ecosystem model. ISME Journal, 2015, 9, 226-237.	4.4	113
60	Estimating soil respiration using spatial data products: A case study in a deciduous broadleaf forest in the Midwest USA. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6393-6408.	1.2	25
61	Representation of Dormant and Active Microbial Dynamics for Ecosystem Modeling. PLoS ONE, 2014, 9, e89252.	1.1	59
62	Artefactual responses of mesophyll conductance to <scp>CO</scp> ₂ and irradiance estimated with the variable <i><scp>J</scp></i> and online isotope discrimination methods. Plant, Cell and Environment, 2014, 37, 1231-1249.	2.8	108
63	The relationship of leaf photosynthetic traits – <i>V</i> _{cmax} and <i>J</i> _{max} – to leaf nitrogen, leaf phosphorus, and specific leaf area: a metaâ€analysis and modeling study. Ecology and Evolution, 2014, 4, 3218-3235.	0.8	338
64	New Particle Formation and Growth in an Isoprene-Dominated Ozark Forest: From Sub-5Ânm to CCN-Active Sizes. Aerosol Science and Technology, 2014, 48, 1285-1298.	1.5	41
65	A functional test platform for the Community Land Model. Environmental Modelling and Software, 2014, 55, 25-31.	1.9	21
66	Asymmetrical effects of mesophyll conductance on fundamental photosynthetic parameters and their relationships estimated from leaf gas exchange measurements. Plant, Cell and Environment, 2014, 37, 978-994.	2.8	90
67	Seasonal, diurnal and vertical variation in photosynthetic parameters in Phyllostachys humilis bamboo plants. Photosynthesis Research, 2014, 120, 331-346.	1.6	12
68	Partitioning Climatic and Biotic Effects on Interannual Variability of Ecosystem Carbon Exchange in Three Ecosystems. Ecosystems, 2014, 17, 1186-1201.	1.6	21
69	Data-driven diagnostics of terrestrial carbon dynamics over North America. Agricultural and Forest Meteorology, 2014, 197, 142-157.	1.9	88
70	The seasonal cycle of satellite chlorophyll fluorescence observations and its relationship to vegetation phenology and ecosystem atmosphere carbon exchange. Remote Sensing of Environment, 2014, 152, 375-391.	4.6	287
71	Impact of mesophyll diffusion on estimated global land CO ₂ fertilization. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15774-15779.	3.3	129
72	Observed and modeled ecosystem isoprene fluxes from an oak-dominated temperate forest and the influence of drought stress. Atmospheric Environment, 2014, 84, 314-322.	1.9	61

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73	An eddy covariance theory of using O2 to CO2 exchange ratio to constrain measurements of net ecosystem exchange of any gas species. Agricultural and Forest Meteorology, 2013, 176, 104-110.	1.9	3
74	Use of change-point detection for friction–velocity threshold evaluation in eddy-covariance studies. Agricultural and Forest Meteorology, 2013, 171-172, 31-45.	1.9	126
75	Temperature Sensitivity of Canopy Photosynthesis Phenology in Northern Ecosystems. , 2013, , 503-519.		6
76	Forest greenness after the massive 2008 Chinese ice storm: integrated effects of natural processes and human intervention. Environmental Research Letters, 2012, 7, 035702.	2.2	26
77	Timing and magnitude of C partitioning through a young loblolly pine (Pinus taeda L.) stand using 13C labeling and shade treatments. Tree Physiology, 2012, 32, 799-813.	1.4	38
78	Thermal optimality of net ecosystem exchange of carbon dioxide and underlying mechanisms. New Phytologist, 2012, 194, 775-783.	3.5	111
79	On the temporal upscaling of evapotranspiration from instantaneous remote sensing measurements to 8-day mean daily-sums. Agricultural and Forest Meteorology, 2012, 152, 212-222.	1.9	121
80	The fundamental equation of eddy covariance and its application in flux measurements. Agricultural and Forest Meteorology, 2012, 152, 135-148.	1.9	56
81	A numerical issue in calculating the coupled carbon and water fluxes in a climate model. Journal of Geophysical Research, 2012, 117, .	3.3	19
82	A modelâ€data comparison of gross primary productivity: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research, 2012, 117, .	3.3	274
83	Impact of the 2008 ice storm on China's forests. , 2011, , .		2
84	Impact of the 2008 ice storm on moso bamboo plantations in southeast China. Journal of Geophysical Research, 2011, 116, .	3.3	31
85	Assessing net ecosystem carbon exchange of U.S. terrestrial ecosystems by integrating eddy covariance flux measurements and satellite observations. Agricultural and Forest Meteorology, 2011, 151, 60-69.	1.9	157
86	Controls on winter ecosystem respiration in temperate and boreal ecosystems. Biogeosciences, 2011, 8, 2009-2025.	1.3	42
87	Observed increase in local cooling effect of deforestation at higher latitudes. Nature, 2011, 479, 384-387.	13.7	543
88	Reconstruction of false spring occurrences over the southeastern United States, 1901–2007: an increasing risk of spring freeze damage?. Environmental Research Letters, 2011, 6, 024015.	2.2	78
89	The Great 2008 Chinese Ice Storm: Its Socioeconomic–Ecological Impact and Sustainability Lessons Learned. Bulletin of the American Meteorological Society, 2011, 92, 47-60.	1.7	201
90	Environmental controls on water use efficiency during severe drought in an Ozark Forest in Missouri, USA. Global Change Biology, 2010, 16, 2252-2271.	4.2	71

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91	A continuous measure of gross primary production for the conterminous United States derived from MODIS and AmeriFlux data. Remote Sensing of Environment, 2010, 114, 576-591.	4.6	210
92	Reliable estimation of biochemical parameters from C ₃ leaf photosynthesis–intercellular carbon dioxide response curves. Plant, Cell and Environment, 2010, 33, 1852-1874.	2.8	180
93	Albedo estimates for land surface models and support for a new paradigm based on foliage nitrogen concentration. Global Change Biology, 2010, 16, 696-710.	4.2	144
94	Climate control of terrestrial carbon exchange across biomes and continents. Environmental Research Letters, 2010, 5, 034007.	2.2	137
95	Using Time Series Segmentation for Deriving Vegetation Phenology Indices from MODIS NDVI Data. , 2010, , .		10
96	A modelâ€data intercomparison of CO ₂ exchange across North America: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research, 2010, 115, .	3.3	247
97	The MODIS (Collection V005) BRDF/albedo product: Assessment of spatial representativeness over forested landscapes. Remote Sensing of Environment, 2009, 113, 2476-2498.	4.6	272
98	Estimating nocturnal ecosystem respiration from the vertical turbulent flux and change in storage of CO2. Agricultural and Forest Meteorology, 2009, 149, 1919-1930.	1.9	91
99	Characterizing the Seasonal Dynamics of Plant Community Photosynthesis Across a Range of Vegetation Types., 2009,, 35-58.		42
100	The Phenology of Gross Ecosystem Productivity and Ecosystem Respiration in Temperate Hardwood and Conifer Chronosequences., 2009,, 59-85.		14
101	A novel approach for identifying the true temperature sensitivity from soil respiration measurements. Global Biogeochemical Cycles, 2008, 22, .	1.9	34
102	Assimilation of satellite reflectance data into a dynamical leaf model to infer seasonally varying leaf areas for climate and carbon models. Journal of Geophysical Research, 2008, 113, .	3.3	24
103	Estimation of net ecosystem carbon exchange for the conterminous United States by combining MODIS and AmeriFlux data. Agricultural and Forest Meteorology, 2008, 148, 1827-1847.	1.9	221
104	The 2007 Eastern US Spring Freeze: Increased Cold Damage in a Warming World?. BioScience, 2008, 58, 253-262.	2.2	506
105	Influences of biomass heat and biochemical energy storages on the land surface fluxes and radiative temperature. Journal of Geophysical Research, 2007, 112, .	3.3	45
106	Biases of CO ₂ storage in eddy flux measurements in a forest pertinent to vertical configurations of a profile system and CO ₂ density averaging. Journal of Geophysical Research, 2007, 112, .	3.3	34
107	Correction to "Influences of biomass heat and biochemical energy storages on the land surface fluxes and radiative temperature― Journal of Geophysical Research, 2007, 112, .	3.3	6
108	Potential impacts of aerosol–land–atmosphere interactions on the Indian monsoonal rainfall characteristics. Natural Hazards, 2007, 42, 345-359.	1.6	60

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109	Direct and indirect effects of atmospheric conditions and soil moisture on surface energy partitioning revealed by a prolonged drought at a temperate forest site. Journal of Geophysical Research, 2006, 111, .	3.3	191
110	Temperature-independent diel variation in soil respiration observed from a temperate deciduous forest. Global Change Biology, 2006, 12, 2136-2145.	4.2	134
111	Predicting the onset of net carbon uptake by deciduous forests with soil temperature and climate data: a synthesis of FLUXNET data. International Journal of Biometeorology, 2005, 49, 377-387.	1.3	167
112	Objective threshold determination for nighttime eddy flux filtering. Agricultural and Forest Meteorology, 2005, 128, 179-197.	1.9	241
113	Fast labile carbon turnover obscures sensitivity of heterotrophic respiration from soil to temperature: A model analysis. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	1.9	135
114	Response of a Deciduous Forest to the Mount Pinatubo Eruption: Enhanced Photosynthesis. Science, 2003, 299, 2035-2038.	6.0	566
115	Comment on "Climate and Management Contributions to Recent Trends in U.S. Agricultural Yields". Science, 2003, 300, 1505b-1505.	6.0	11
116	Phenology of Vegetation Photosynthesis. Tasks for Vegetation Science, 2003, , 467-485.	0.6	36
117	How the environment, canopy structure and canopy physiological functioning influence carbon, water and energy fluxes of a temperate broad-leaved deciduous forest-an assessment with the biophysical model CANOAK. Tree Physiology, 2002, 22, 1065-1077.	1.4	204
118	Advantages of diffuse radiation for terrestrial ecosystem productivity. Journal of Geophysical Research, 2002, 107, ACL 2-1-ACL 2-23.	3.3	518
119	Environmental controls over carbon dioxide and water vapor exchange of terrestrial vegetation. Agricultural and Forest Meteorology, 2002, 113, 97-120.	1.9	1,133
120	FLUXNET: A New Tool to Study the Temporal and Spatial Variability of Ecosystem–Scale Carbon Dioxide, Water Vapor, and Energy Flux Densities. Bulletin of the American Meteorological Society, 2001, 82, 2415-2434.	1.7	3,018
121	Cloud modulation of surface solar irradiance at a pasture site in southern Brazil. Agricultural and Forest Meteorology, 2001, 106, 117-129.	1.9	78
122	Biogenic Hydrocarbons in the Atmospheric Boundary Layer: A Review. Bulletin of the American Meteorological Society, 2000, 81, 1537-1575.	1.7	532
123	FLUXNET Evaluates "Breathing patterns―of diverse ecosystems. Eos, 2000, 81, 565.	0.1	0
124	Seasonal Variations in Isoprene Emissions from a Boreal Aspen Forest. Journal of Applied Meteorology and Climatology, 1999, 38, 855-869.	1.7	66
125	Micrometeorology, biophysical exchanges and NEE decomposition in a two-story boreal forest — development and test of an integrated model. Agricultural and Forest Meteorology, 1999, 94, 123-148.	1.9	78
126	Responses of net ecosystem exchanges of carbon dioxide to changes in cloudiness: Results from two North American deciduous forests. Journal of Geophysical Research, 1999, 104, 31421-31434.	3.3	222

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127	Comments on "a Practical Method for Relating Scalar Concentrations to Source Distributions in Vegetation Canopies―by M. R. Raupach. Boundary-Layer Meteorology, 1998, 87, 515-524.	1.2	4
128	Crown structure and growth efficiency of red spruce in uneven-aged, mixed-species stands in Maine. Canadian Journal of Forest Research, 1998, 28, 1233-1240.	0.8	58